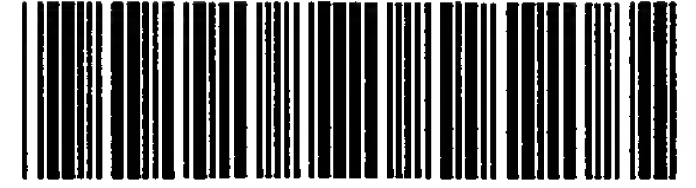


RECEIVED

1643 Page 1 of 8

JUN 20 2002

TECH CENTER 1600/2900



1642

P#19

OIPE

## RAW SEQUENCE LISTING

DATE: 06/03/2002

PATENT APPLICATION: US/09/373,403A

TIME: 13:02:24

Input Set : A:\P1099C1.txt

Output Set: N:\CRF3\06032002\I373403A.raw

P6

3 <110> APPLICANT: ARATHOON, R.  
4 CARTER, P.J.  
5 MERCHANT, A.M.  
6 PRESTA, L.G.  
8 <120> TITLE OF INVENTION: METHOD FOR MAKING MULTISPECIFIC ANTIBODIES HAVING  
9 HETEROMULTIMERIC AND COMMON COMPONENTS  
11 <130> FILE REFERENCE: P1099C1  
13 <140> CURRENT APPLICATION NUMBER: US 09/373,403A  
C--> 14 <141> CURRENT FILING DATE: 2002-05-16  
16 <150> PRIOR APPLICATION NUMBER: US 08/850,058  
17 <151> PRIOR FILING DATE: 1997-05-02  
19 <160> NUMBER OF SEQ ID NOS: 26  
21 <210> SEQ ID NO: 1  
22 <211> LENGTH: 36  
23 <212> TYPE: DNA  
24 <213> ORGANISM: Artificial sequence  
26 <220> FEATURE:  
27 <223> OTHER INFORMATION: Mutant  
29 <400> SEQUENCE: 1  
30 ctcttccccga gatgggggca ggggtgcacac ctgtgg 36  
32 <210> SEQ ID NO: 2  
33 <211> LENGTH: 21  
34 <212> TYPE: DNA  
35 <213> ORGANISM: Artificial sequence  
37 <220> FEATURE:  
38 <223> OTHER INFORMATION: mutant  
40 <400> SEQUENCE: 2  
41 ctcttccccga catgggggca g 21  
43 <210> SEQ ID NO: 3  
44 <211> LENGTH: 21  
45 <212> TYPE: DNA  
46 <213> ORGANISM: Artificial sequence  
48 <220> FEATURE:  
49 <223> OTHER INFORMATION: mutant  
51 <400> SEQUENCE: 3  
52 ggtcatctca caccgggatg g 21  
54 <210> SEQ ID NO: 4  
55 <211> LENGTH: 24  
56 <212> TYPE: DNA  
57 <213> ORGANISM: Artificial sequence  
59 <220> FEATURE:  
60 <223> OTHER INFORMATION: mutant  
62 <400> SEQUENCE: 4

ENTERED

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/373,403A

DATE: 06/03/2002

TIME: 13:02:24

Input Set : A:\P1099C1.txt

Output Set: N:\CRF3\06032002\I373403A.raw

63 cttggtcata cattcacggg atgg 24  
65 <210> SEQ ID NO: 5  
66 <211> LENGTH: 30  
67 <212> TYPE: DNA  
68 <213> ORGANISM: Artificial sequence  
70 <220> FEATURE:  
71 <223> OTHER INFORMATION: mutant  
73 <400> SEQUENCE: 5  
74 ctcttcccga gatgggggac aggtgtacac 30  
76 <210> SEQ ID NO: 6  
77 <211> LENGTH: 21  
78 <212> TYPE: DNA  
79 <213> ORGANISM: Artificial sequence  
81 <220> FEATURE:  
82 <223> OTHER INFORMATION: mutant  
84 <400> SEQUENCE: 6  
85 gccgtcggaa cacagcacgg g 21  
87 <210> SEQ ID NO: 7  
88 <211> LENGTH: 39  
89 <212> TYPE: DNA  
90 <213> ORGANISM: Artificial sequence  
92 <220> FEATURE:  
93 <223> OTHER INFORMATION: mutant  
95 <400> SEQUENCE: 7  
96 ctgggagtct agaacgggag gcgtggtaca gtagttgtt 39  
98 <210> SEQ ID NO: 8  
99 <211> LENGTH: 33  
100 <212> TYPE: DNA  
101 <213> ORGANISM: Artificial sequence  
103 <220> FEATURE:  
104 <223> OTHER INFORMATION: mutant  
106 <400> SEQUENCE: 8  
107 gtcggagtct agaacgggag gacaggtctt gta 33  
109 <210> SEQ ID NO: 9  
110 <211> LENGTH: 21  
111 <212> TYPE: DNA  
112 <213> ORGANISM: Artificial sequence  
114 <220> FEATURE:  
115 <223> OTHER INFORMATION: mutant  
117 <400> SEQUENCE: 9  
118 gtcggagtct agacagggag g 21  
120 <210> SEQ ID NO: 10  
121 <211> LENGTH: 21  
122 <212> TYPE: DNA  
123 <213> ORGANISM: Artificial sequence  
125 <220> FEATURE:  
126 <223> OTHER INFORMATION: mutant  
128 <400> SEQUENCE: 10  
129 gccgtcggag ctcagcacgg g 21

## RAW SEQUENCE LISTING

DATE: 06/03/2002

PATENT APPLICATION: US/09/373,403A

TIME: 13:02:24

Input Set : A:\P1099C1.txt

Output Set: N:\CRF3\06032002\I373403A.raw

```

131 <210> SEQ ID NO: 11
132 <211> LENGTH: 24
133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: mutant
139 <400> SEQUENCE: 11
140   gggaggcgtg gtgctgtagt tggt 24
142 <210> SEQ ID NO: 12
143 <211> LENGTH: 38
144 <212> TYPE: DNA
145 <213> ORGANISM: Artificial sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: mutant
150 <400> SEQUENCE: 12
151   gttcagggtgc tgggctcggg gggcttgtgt gagttttg 38
153 <210> SEQ ID NO: 13
154 <211> LENGTH: 821
155 <212> TYPE: DNA
156 <213> ORGANISM: Artificial sequence
158 <220> FEATURE:
159 <223> OTHER INFORMATION: mutant
161 <400> SEQUENCE: 13
162   aacgcgtacg ctctgaaaat ggcggaccgc aaccgttttc gtggtaaaga 50
164   tctggctgca cactacggcc agccgcggga acctcagggt tataccctgc 100
166   caccgtctcg agaagaaatg actaaaaacc aggtctctct gtgggtgcctg 150
168   gtcaaagggt tctatccgag cgatatcgcc gtggaatggg aaagcaacgg 200
170   tcaaccggaa aacaactaca aaaccactcc accggtgctg gattctgatg 250
172   gctccttctt tctgtattcg aagctgaccg ttgacaaaag ccgttggcag 300
174   caaggcaacg ttttcagctg ttctgttatg cacgaggcct tgcacaacca 350
176   ctacaccagc aaaagcctgt ccctgtctcc cgggaaataa gctgaggctc 400
178   ctctagaggt tgaggtgatt ttatgaaaaa gaatatcgca tttcttcttg 450
180   catctatgtt cgttttttct attgctacaa acgcgtacgc tgggcagccc 500
182   cgagaaccac aggtgtacac cctgccccca tcccgggaag agatgaccaa 550
184   gaaccaggta agcttgactt gctgggtcaa aggcttctat cccagcgaca 600
186   tcgccgtgga gtgggagagc aatgggcagc cggagaacaa ctacaagacc 650
188   acgcctcccg tgctggactc cgacggctcc ttcttctctt acagctttct 700
190   caccgtcgac aagagcaggt ggcagcaggg gaacgtcttc tcatgctccg 750
192   tgatgcatga ggctctgcac aaccactaca cgcagaagag cctctccctg 800
194   tctccgggta aataggggcc c 821
196 <210> SEQ ID NO: 14
197 <211> LENGTH: 50
198 <212> TYPE: PRT
199 <213> ORGANISM: Artificial sequence
201 <220> FEATURE:
202 <223> OTHER INFORMATION: recombinant
204 <400> SEQUENCE: 14
205   Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu
206     1             5             10             15

```

## RAW SEQUENCE LISTING

DATE: 06/03/2002

PATENT APPLICATION: US/09/373,403A

TIME: 13:02:24

Input Set : A:\P1099C1.txt

Output Set: N:\CRF3\06032002\I373403A.raw

```

208 Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
209           20                      25                      30
211 Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
212           35                      40                      45
214 Lys Leu Thr Val Leu
215           50
217 <210> SEQ ID NO: 15
218 <211> LENGTH: 50
219 <212> TYPE: PRT
220 <213> ORGANISM: Artificial sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: recombinant
225 <400> SEQUENCE: 15
226 Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu
227   1           5                      10                      15
229 Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
230           20                      25                      30
232 Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
233           35                      40                      45
235 Lys Leu Thr Val Leu
236           50
238 <210> SEQ ID NO: 16
239 <211> LENGTH: 50
240 <212> TYPE: PRT
241 <213> ORGANISM: Artificial sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: recombinant
246 <400> SEQUENCE: 16
247 Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu
248   1           5                      10                      15
250 Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
251           20                      25                      30
253 Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
254           35                      40                      45
256 Lys Leu Thr Val Leu
257           50
259 <210> SEQ ID NO: 17
260 <211> LENGTH: 50
261 <212> TYPE: PRT
262 <213> ORGANISM: Artificial sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: recombinant
267 <400> SEQUENCE: 17
268 Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu
269   1           5                      10                      15
271 Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
272           20                      25                      30
274 Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
275           35                      40                      45

```

## RAW SEQUENCE LISTING

DATE: 06/03/2002

PATENT APPLICATION: US/09/373,403A

TIME: 13:02:24

Input Set : A:\P1099C1.txt

Output Set: N:\CRF3\06032002\I373403A.raw

```

277 Lys Leu Thr Val Leu
278                               50
280 <210> SEQ ID NO: 18
281 <211> LENGTH: 50
282 <212> TYPE: PRT
283 <213> ORGANISM: Artificial sequence
285 <220> FEATURE:
286 <223> OTHER INFORMATION: recombinant
288 <400> SEQUENCE: 18
289 Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu
290 1                               5                               10                               15
292 Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
293                               20                               25                               30
295 Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
296                               35                               40                               45
298 Lys Leu Thr Val Leu
299                               50
301 <210> SEQ ID NO: 19
302 <211> LENGTH: 50
303 <212> TYPE: PRT
304 <213> ORGANISM: Artificial sequence
306 <220> FEATURE:
307 <223> OTHER INFORMATION: recombinant
309 <400> SEQUENCE: 19
310 Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Ser Thr Ala Ser Leu
311 1                               5                               10                               15
313 Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
314                               20                               25                               30
316 Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
317                               35                               40                               45
319 Lys Leu Thr Val Leu
320                               50
322 <210> SEQ ID NO: 20
323 <211> LENGTH: 50
324 <212> TYPE: PRT
325 <213> ORGANISM: Artificial sequence
327 <220> FEATURE:
328 <223> OTHER INFORMATION: recombinant
330 <220> FEATURE:
331 <221> NAME/KEY: unsure
332 <222> LOCATION: 9
333 <223> OTHER INFORMATION: unknown amino acid
335 <400> SEQUENCE: 20
W--> 336 Ser Asn Arg Phe Ser Gly Ser Lys Xaa Gly Asn Thr Ala Ser Leu
337 1                               5                               10                               15
339 Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
340                               20                               25                               30
342 Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
343                               35                               40                               45

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/373,403A

DATE: 06/03/2002  
TIME: 13:02:25

Input Set : A:\P1099C1.txt  
Output Set: N:\CRF3\06032002\I373403A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:20; Xaa Pos. 9  
Seq#:26; Xaa Pos. 130,261